

FIG.1

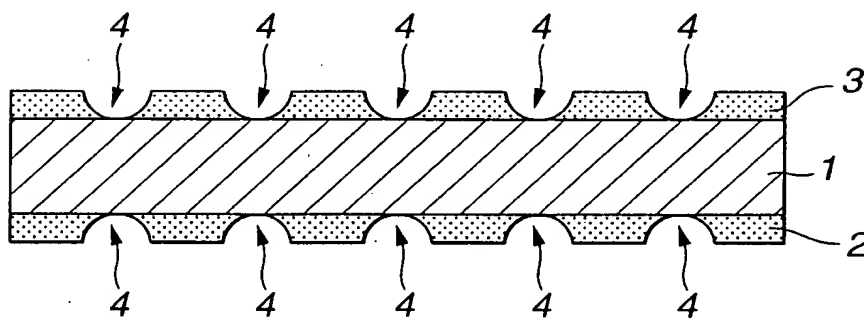


FIG.2

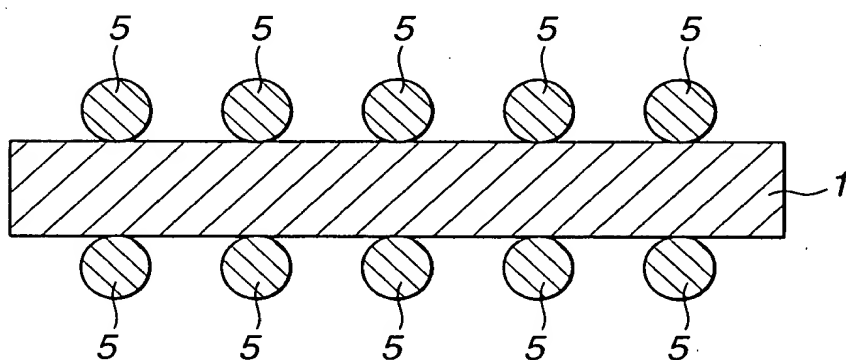


FIG.3

The figure illustrates the growth of carbon clusters through several stages and specific molecular structures.

Top Section: Growth of Carbon Clusters

- Stage 1: A single carbon atom (represented by a small circle).
- Stage 2: A small cluster of 6 atoms (a hexagon).
- Stage 3: A cluster of 10 atoms (a pentagon with a central atom).
- Stage 4: A cluster of 20 atoms (a dodecahedron).
- Stage 5: A large spherical cluster of 100 atoms (a truncated octahedron).

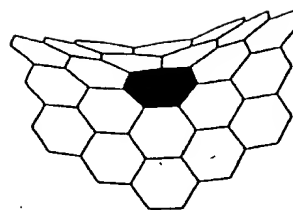
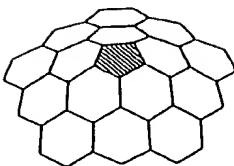
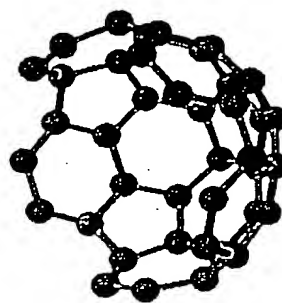
Middle Section: Polyhedral Structures

- $C_{18}H_{24}$: A polyhedral structure with 18 vertices and 24 edges.
- $C_{20}H_{20}$: A polyhedral structure with 20 vertices and 20 edges.
- $C_{22}H_{28}$: A polyhedral structure with 22 vertices and 28 edges.
- C_{60} : A truncated octahedron, a polyhedron with 32 faces (12 hexagons and 20 squares) and 60 vertices.

Bottom Section: Fullerene Structures

- C_{60} : A truncated octahedron, a polyhedron with 32 faces (12 hexagons and 20 squares) and 60 vertices.
- C_{76} : A polyhedral structure with 76 vertices and 140 edges.
- C_{70} : A polyhedral structure with 70 vertices and 126 edges.
- C_{78} : A polyhedral structure with 78 vertices and 144 edges.

FIG.4

[illegible]

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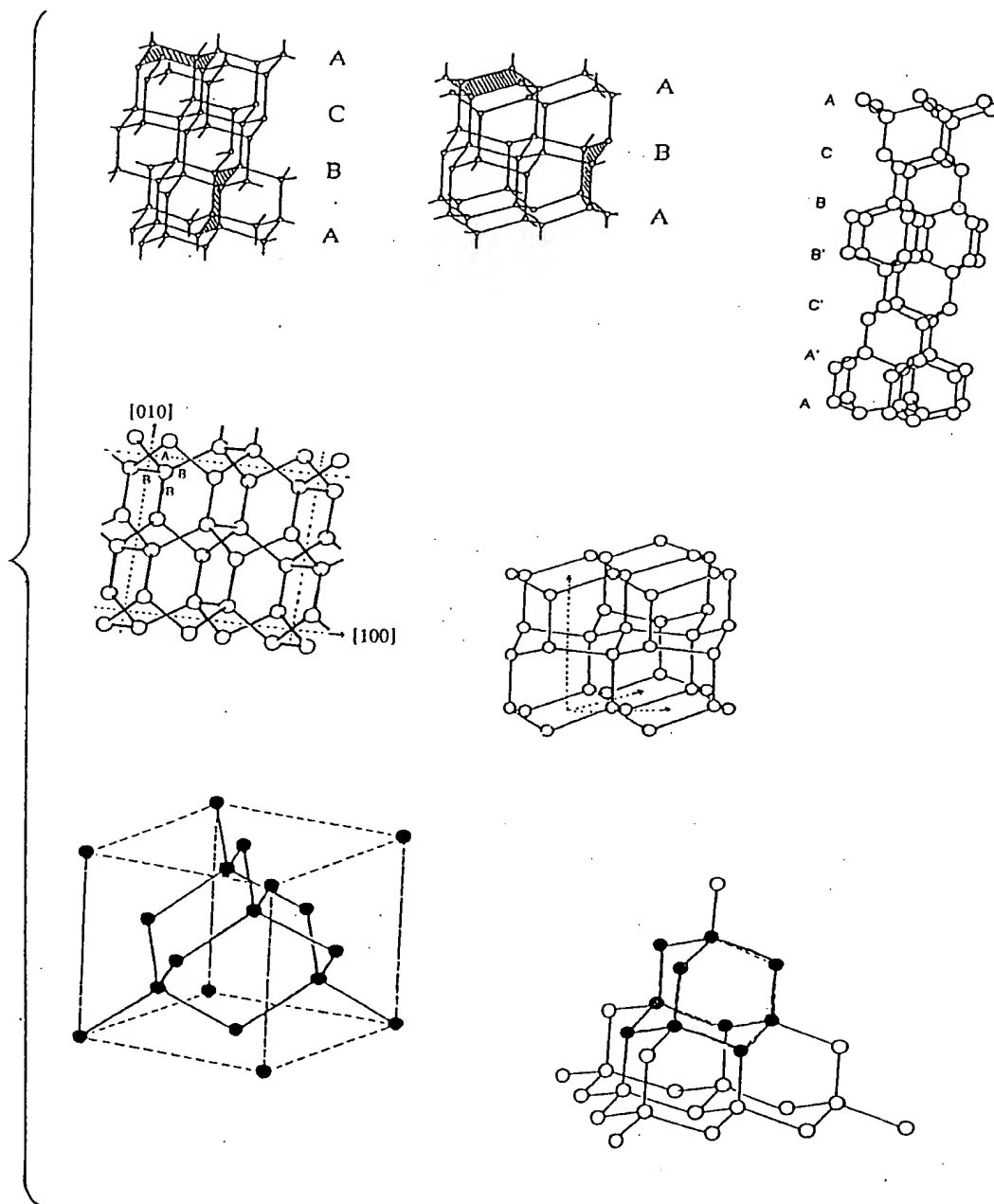


FIG.6

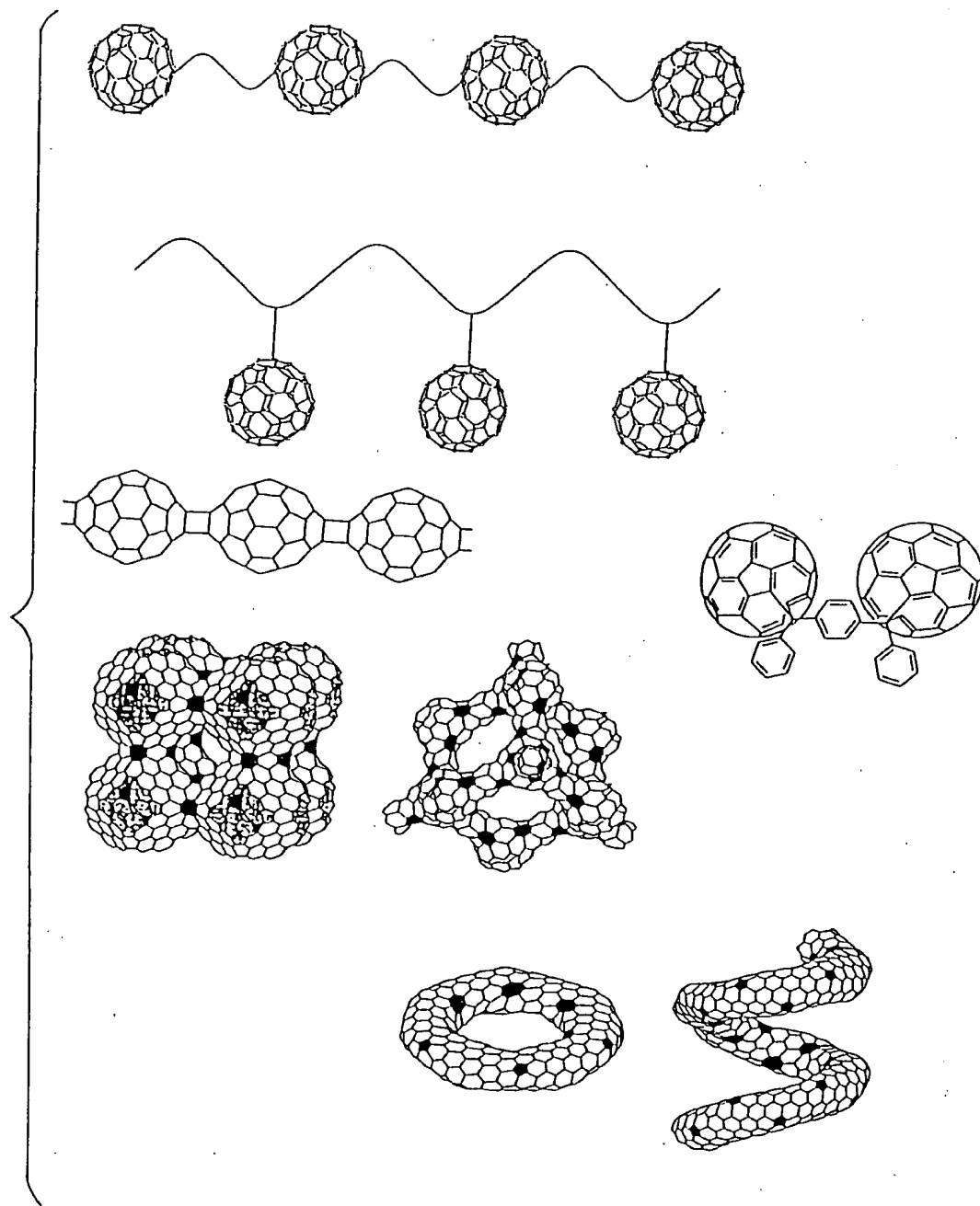


FIG.7